Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Eye care: percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months.

Source(s)

American Medical Association-convened Physician Consortium for Performance ImprovementÂ® (PCPIÂ®), American Academy of Ophthalmology. Eye care I and II performance measurement sets. Chicago (IL): American Medical Association (AMA); 2015 Aug. 55 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed with documented communication to the physician who manages the ongoing care of the patient with diabetes mellitus regarding the findings of the macular or fundus exam at least once within 12 months.

Rationale

The primary care physician who manages the ongoing care of the patient with diabetes should be aware of the patient's dilated eye examination and severity of retinopathy to manage the ongoing diabetes care. Such communication is important in assisting the physician to better manage the diabetes. Several studies have shown that better management of diabetes is directly related to lower rates of development

of diabetic eye disease (Diabetes Control and Complications Trial [DCCT], UK Prospective Diabetes Study [UKPDS]) ("The effect," 1993; "Tight blood pressure," 1998).

The following clinical recommendation statement is quoted verbatim from the referenced clinical guidelines and represents the evidence base for the measure:

Ophthalmologists should communicate the ophthalmologic findings and level of retinopathy with the primary care physician as well as the need for optimizing metabolic control (American Academy of Ophthalmology Retina/Vitreous Panel, 2014).

Evidence for Rationale

American Academy of Ophthalmology Retina/Vitreous Panel. Diabetic retinopathy. San Francisco (CA): American Academy of Ophthalmology; 2014.

American Medical Association-convened Physician Consortium for Performance ImprovementÂ® (PCPIÂ®), American Academy of Ophthalmology. Eye care I and II performance measurement sets. Chicago (IL): American Medical Association (AMA); 2015 Aug. 55 p.

The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. The Diabetes Control and Complications Trial Research Group. N Engl J Med. 1993 Sep 30;329(14):977-86. PubMed

Tight blood pressure control and risk of macrovascular and microvascular complications in type 2 diabetes: UKPDS 38. UK Prospective Diabetes Study Group. BMJ. 1998 Sep 12;317(7160):703-13. PubMed

Primary Health Components

Diabetic retinopathy; dilated macular or fundus exam; physician communication; management

Denominator Description

All patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Patients with documentation, at least once within 12 months of the findings of the dilated macular or fundus exam via communication to the physician who manages the patient's diabetic care (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Opportunity for Improvement

In general, communication between specialists and primary care physicians is lacking. A number of studies have assessed the adequacy of information transfer between the referring provider and the specialist and noted a significant lack of effective communication transfer (Mehrotra, Forrest, & Lin, 2011). In more than half the referrals in the studies reviewed, the referring provider had no communication with the specialist (Bourguet, Gilchrist, & McCord, 1998; Gandhi et al., 2000; Stille et al., 2006). Up to 45 percent of referrals resulted in no communication from the specialist back to the referring provider (Bourguet, Gilchrist & McCord, 1998; Gandhi et al., 2000; Stille et al., 2006; Byrd & Moskowitz, 1987; McPhee et al., 1984). A 2009 survey by O'Malley and Cunningham found that 80.6% of specialists said they "always" or "most of the time" send the referring primary care physician (PCP) notification of the results of their consultation and advice to patients, whereas only 62.2% of PCPs reported they received such information.

Patient surveys also identify problems with information transfer. For example, approximately one-quarter of U.S. patients reported that the results and records from one provider did not reach another provider in time for their appointment (Blendon et al., 2003; Schoen et al., 2009). Even though all physicians highly value communication between referring providers and specialists (Linzer et al., 2006) both primary care physicians and specialists cite the lack of effective information transfer as one of the greatest problems in the referral process (Gandhi et al., 2000).

Evidence for Additional Information Supporting Need for the Measure

American Medical Association-convened Physician Consortium for Performance ImprovementÂ® (PCPIÂ®), American Academy of Ophthalmology. Eye care I and II performance measurement sets. Chicago (IL): American Medical Association (AMA); 2015 Aug. 55 p.

Blendon RJ, Schoen C, DesRoches C, Osborn R, Zapert K. Common concerns amid diverse systems: health care experiences in five countries. Health Aff (Millwood). 2003 May-Jun;22(3):106-21. PubMed

Bourguet C, Gilchrist V, McCord G. The consultation and referral process. A report from NEON. Northeastern Ohio Network Research Group. J Fam Pract. 1998 Jan;46(1):47-53. PubMed

Byrd JC, Moskowitz MA. Outpatient consultation: interaction between the general internist and the specialist. J Gen Intern Med. 1987 Mar-Apr;2(2):93-8. PubMed

Gandhi TK, Sittig DF, Franklin M, Sussman AJ, Fairchild DG, Bates DW. Communication breakdown in the outpatient referral process. J Gen Intern Med. 2000 Sep;15(9):626-31. PubMed

Linzer M, Myerburg RJ, Kutner JS, et al, and the ASP Workforce Committee. Exploring the generalist-subspecialist interface in internal medicine. Am J Med. 2006;119(6):528-37.

McPhee SJ, Lo B, Saika GY, Meltzer R. How good is communication between primary care physicians and subspecialty consultants?. Arch Intern Med. 1984 Jun;144(6):1265-8. PubMed

Mehrotra A, Forrest CB, Lin CY. Dropping the baton: specialty referrals in the United States. Milbank Q. 2011 Mar;89(1):39-68. PubMed

O'Malley AS, Cunningham PJ. Patient experiences with coordination of care: the benefit of continuity and primary care physician as referral source. J Gen Intern Med. 2009 Feb;24(2):170-7. PubMed

Schoen C, Osborn R, How SK, Doty MM, Peugh J. In chronic condition: experiences of patients with complex health care needs, in eight countries, 2008. Health Aff (Millwood). 2009 Jan-Feb;28(1):w1-16. PubMed

Stille CJ, McLaughlin TJ, Primack WA, Mazor KM, Wasserman RC. Determinants and impact of generalist-specialist communication about pediatric outpatient referrals. Pediatrics. 2006 Oct;118(4):1341-9. PubMed

Extent of Measure Testing

The American Medical Association (AMA)-convened Physician Consortium for Performance Improvement (PCPI) collaborated on several measure testing projects in 2012, 2013 and 2015 to ensure the Primary Open-Angle Glaucoma Optic Nerve Evaluation, Diabetic Retinopathy – Documentation of Presence or Absence of Macular Edema and Diabetic Retinopathy – Communication with the Physician Managing Ongoing Diabetes Care measures are reliable and evaluated for accuracy of the measure numerator, denominator and exception case identification. The testing projects were conducted utilizing electronic health record data and registry data. Parallel forms reliability and signal-to-noise reliability was tested.

One site participated in the parallel forms testing of the Diabetic Retinopathy – Communication with the Physician Managing Ongoing Diabetes Care measure. Site A was a physician-owned private practice with one ophthalmologist.

Signal-to-noise reliability was assessed using 2013 data acquired from the Centers for Medicare & Medicaid Services Physician Quality Reporting System Group Practice Reporting Option (GPRO) database.

Diabetic Retinopathy – Communication with the Physician Managing Ongoing Diabetes Care

Parallel Forms Reliability Testing (Site A)

There were 155 observations from one site used for the denominator analysis. The kappa statistic value was found to be non-calculable resulting from the inability to divide by zero in the statistic formula when only one response was used.

Of the 155 observations that were initially selected, 155 observations met the criteria for inclusion in the numerator analysis. The kappa statistic value of 0.52 demonstrates moderate agreement between the automated report and reviewer.

Reliability: N, % Agreement, Kappa (95% Confidence Interval)
Denominator: 155, 100.0%, Non-Calculable* (Non-Calculable, Non-Calculable)**
Numerator: 155, 89.7%, 0.52 (0.32, 0.73)
Exception: 155, 100.0%, Non-Calculable* (Non-Calculable, Non-Calculable)**

*Cannot calculate kappa statistics when only one response (Yes/Yes) was used, as this causes a divide-by-zero error in the statistic formula.

**This is an example of the limitation of the Kappa statistic. While the agreement can be 90% or greater, if one classification category dominates, the Kappa can be significantly reduced.

Signal-to-Noise Reliability Testing

For this measure, the reliability at the minimum level of quality reporting events (10) was 0.82. The average number of quality reporting events for physicians included is 80.7. The reliability at the average number of quality reporting events was 0.97.

This measure has high reliability when evaluated at the minimum level of quality reporting events and high reliability at the average number of quality events.

Evidence for Extent of Measure Testing

American Medical Association-convened Physician Consortium for Performance ImprovementÂ® (PCPIÂ®), American Academy of Ophthalmology. Eye care I and II performance measurement sets. Chicago (IL): American Medical Association (AMA); 2015 Aug. 55 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Long-term Care Facilities - Other

Transition

Type of Care Coordination

Coordination across provider teams/sites

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Individual Clinicians or Public Health Professionals

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Effective Communication and Care Coordination
Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Unspecified

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Diagnostic Evaluation

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
All patients aged 18 years and older with a diagnosis of diabetic retinopathy who had a dilated macular or fundus exam performed

Note: Refer to the original measure documentation for administrative codes.

Exclusions
None

Exceptions

> Documentation of medical reason(s) for not communicating the findings of the dilated macular or fundus exam to the physician who manages the on-going care of the patient with diabetes
> Documentation of patient reason(s) for not communicating the findings of the dilated macular or fundus exam to the physician who manages the on-going care of the patient with diabetes

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions
Patients with documentation, at least once within 12 months, of the findings of the dilated macular or fundus exam via communication to the physician who manages the patient's diabetic care

Note: Refer to the original measure documentation for administrative codes.

Note:

> *Findings*: Includes level of severity of retinopathy (e.g., mild nonproliferative, moderate nonproliferative, severe nonproliferative, very severe nonproliferative, proliferative) AND the presence or absence of macular edema.
> *Communication*: May include documentation in the medical record indicating that the findings of the dilated macular or fundus exam were communicated (e.g., verbally, by letter) with the clinician managing the patient's diabetic care OR a copy of a letter in the medical record to the clinician managing the patient's diabetic care outlining the findings of the dilated macular or fundus exam.

Exclusions
Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Electronic health/medical record

Registry data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Measure #8: diabetic retinopathy: communication with the physician managing ongoing diabetes care.

Measure Collection Name

AMA/PCPI Eye Care I and II Performance Measurement Set

Submitter

American Medical Association - Medical Specialty Society

Developer

American Academy of Ophthalmology - Medical Specialty Society

Physician Consortium for Performance ImprovementÂ® - Clinical Specialty Collaboration

Funding Source(s)

Unspecified

Composition of the Group that Developed the Measure

Eye Care I Measure Development Work Group*

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*The composition and affiliations of the work group members are listed as originally convened in 2006 and are not up to date.

Financial Disclosures/Other Potential Conflicts of Interest

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

Endorser

National Quality Forum - None

NQF Number

not defined yet

Date of Endorsement

2015 Nov 4

Measure Initiative(s)

Physician Quality Reporting System

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Aug

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

This measure updates a previous version: American Academy of Ophthalmology, Physician Consortium for Performance Improvement®, National Committee for Quality Assurance. Eye care I physician performance measurement set. Chicago (IL): American Medical Association (AMA); 2010 Sep. 12 p.

Measure Availability

Source available from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site .

For more information, contact AMA at 330 N. Wabash Avenue Suite 39300, Chicago, Ill. 60611; Phone: 312-800-621-8335; Fax: 312-464-5706; E-mail: cqi@ama-assn.org.

NQMC Status

This NQMC summary was completed by ECRI Institute on February 11, 2008. The information was verified by the measure developer on April 14, 2008.

This NQMC summary was edited by ECRI Institute on October 4, 2010.

This NQMC summary was retrofitted to into the new template on May 18, 2011.

This NQMC summary was edited again by ECRI Institute on April 27, 2012.

This NQMC summary was updated by ECRI Institute on December 3, 2015. The information was verified by the measure developer on January 7, 2016.

Copyright Statement

Production

Source(s)

American Medical Association-convened Physician Consortium for Performance ImprovementÂ® (PCPIÂ®), American Academy of Ophthalmology. Eye care I and II performance measurement sets. Chicago (IL): American Medical Association (AMA); 2015 Aug. 55 p.

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